

AMENDMENTS TO THE CLAIMS

Please replace the pending claims with the following list of the claims:

1. (Original) An isolated hSARS virus having China Center for Type Culture Collection Deposit Accession No. CCTCC-V200303.
2. (Currently amended) An isolated hSARS virus comprising a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1, a complement thereof, or a nucleotide sequence that hybridizes to SEQ ID NO:1 under stringent condition.
3. (Currently amended) An isolated hSARS virus comprising a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:11, a complement thereof, or a nucleotide sequence that hybridizes to SEQ ID NO:11 under stringent condition.
4. (Currently amended) An isolated hSARS virus comprising a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:13, a complement thereof, or a nucleotide sequence that hybridizes to SEQ ID NO:13 under stringent condition.
5. (Original) The hSARS virus of any one of claims 1-4 which is killed.
6. (Original) The hSARS virus of any one of claims 1-4 which is attenuated.
7. (Original) The attenuated hSARS virus of claim 6 whose infectivity is reduced.
8. (Original) The attenuated hSARS virus of claim 7 whose infectivity is reduced by at least 5-fold, 10-fold, 25-fold, 50-fold, 100-fold, 250-fold, 500-fold, or 10,000-fold.
9. (Original) The attenuated hSARS virus of claim 6 whose replication ability is reduced.

10. (Original) The attenuated hSARS virus of claim 9 whose replication ability is reduced by at least 5-fold, 10-fold, 25-fold, 50-fold, 100-fold, 250-fold, 500-fold, 1,000-fold, or 10,000-fold.

11. (Original) The attenuated hSARS virus of claim 6 whose protein synthesis ability is reduced.

12. (Original) The attenuated hSARS virus of claim 11 whose protein synthesis ability is reduced by at least 5-fold, 10-fold, 25-fold, 50-fold, 100-fold, 250-fold, 500-fold, 1,000-fold, or 10,000-fold.

13. (Original) The attenuated hSARS virus of claim 6 whose assembling ability is reduced.

14. (Original) The attenuated hSARS virus of claim 13 whose assembling ability is reduced by at least 5-fold, 10-fold, 25-fold, 50-fold, 100-fold, 250-fold, 500-fold, 1,000-fold, or 10,000-fold.

15. (Original) The attenuated hSARS virus of claim 6 whose cytopathic effect is reduced.

16. (Original) The attenuated hSARS virus of claim 15 whose cytopathic effect is reduced by at least 5-fold, 10-fold, 25-fold, 50-fold, 100-fold, 250-fold, 500-fold, 1,000-fold, or 10,000-fold.

17. (Original) An isolated nucleic acid molecule comprising a nucleotide sequence encoding the hSARS virus of any one of claims 1-4 or a complement thereof.

18. (Original) An isolated nucleic acid molecule which hybridizes under stringent conditions to the nucleic acid molecule of claim 17 or a complement thereof.

19. (Cancelled).

20. (Currently amended) An isolated nucleic acid molecule comprising a nucleotide sequence having at least 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, ~~or~~ 600 or 646 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:1, or a complement thereof.

21. (Original) An isolated nucleic acid molecule comprising a nucleotide sequence that encodes the amino acid sequence of SEQ ID NO:2 or a complement of said nucleotide sequence.

22. (Cancelled).

23. (Currently amended) An isolated nucleic acid molecule comprising a nucleotide sequence having at least 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1,000, 1050, 1,100, 1,150, ~~or~~ 1,200 or 1213 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:11, or a complement thereof.

24. (Cancelled).

25. (Currently amended) An isolated nucleic acid molecule comprising a nucleotide sequence having at least 5, 500, 550, 600, 650, ~~or~~ 700 or 729 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:13, or a complement thereof.

26. (Currently amended) An isolated nucleic acid molecule which hybridizes under stringent conditions to a nucleic acid molecule having the nucleotide sequence of SEQ ID NO:1, 11, ~~or~~ 13 or 15, or a complement thereof, wherein the nucleic acid molecule encodes an amino acid sequence which has a biological activity exhibited by a polypeptide encoded by the nucleotide sequence of SEQ ID NO:1, 11, ~~or~~ 13 or 15.

27. (Original) The nucleic acid molecule of claim 17, wherein the molecule is RNA.

28. (Original) The nucleic acid molecule of claim 18, wherein the molecule is RNA.

29. (Currently amended) The nucleic acid molecule of any one of ~~claim 19-26~~ claims 20, 21, 23, 25 and 26, wherein the molecule is RNA.

30. (Original) The nucleic acid molecule of claim 17, wherein the molecule is DNA.

31. (Original) The nucleic acid molecule of claim 18, wherein the molecule is DNA.

32. (Currently amended) The nucleic acid molecule of any one of ~~claims 19-26~~ 20, 21, 23, 25 and 26, wherein the molecule is DNA.

33. (Cancelled).

34. (Cancelled).

35. (Cancelled).

36. (Cancelled).

37. (Cancelled).

38. (Cancelled).

39. (Cancelled).

40. (Cancelled).

41. (Cancelled).

42. (Cancelled).

43. (Cancelled).

44. (Cancelled).

45. (Cancelled).

46. (Cancelled).

47. (Cancelled).

48. (Cancelled).

49. (Cancelled).

50. (Cancelled).

51. (Cancelled).

52. (Cancelled).

53. (Cancelled).

54. (Original) A method for detecting the presence of the hSARS virus of any one of claims 1-4 in a biological sample, said method comprising:

(a) contacting the sample with a compound that selectively binds to said hSARS virus; and

(b) detecting whether the compound binds to said hSARS virus in the sample.

55. (Original) The method of claim 54, wherein the biological sample is selected from the group consisting of cells, blood, serum, plasma, saliva, urine, stool, sputum, and nasopharyngeal aspirates.

56. (Original) The method of claim 54, wherein the compound that binds to said virus is an antibody.

57. (Cancelled).

58. (Currently amended) The method of claim 54, wherein the compound that binds to said virus is a nucleic acid molecule comprising a nucleotide sequence having at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, ~~or 600~~ or 646 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:1, or a complement thereof.

59. (Cancelled).

60. (Currently amended) The method claim 54, wherein the compound that binds to said virus is a nucleic acid molecule comprising a nucleotide sequence having at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1,000, 1,050, 1,100, 1,150, ~~or 1,200~~ or 1213 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:11, or a complement thereof.

61. (Cancelled).

62. (Currently amended) The method of claim 54, wherein the compound that binds to said virus is a nucleic acid molecule comprising a nucleotide sequence having at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, ~~or 700~~ or 729 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:13, or a complement thereof.

63. (Cancelled).

64. (Cancelled).

65. (Cancelled).

66. (Cancelled).

67. (Cancelled).

68. (Cancelled).

69. (Cancelled).

70. (Cancelled).

71. (Cancelled).

72. (Cancelled).

73. (Cancelled).

74. (Cancelled).

75. (Original) A method for detecting the presence of a first nucleic acid molecule derived from the hSARS virus of ~~claim 1~~ any one of claims 1-4 in a biological sample, said method comprising:

(a) Contacting the biological sample with a compound that selectively binds to said first nucleic acid molecule; and

(b) detecting whether the compound binds to said first nucleic acid molecule in the sample.

76. (Cancelled).

77. (Currently amended) The method of claim 75, wherein the compound that binds to said first nucleic acid molecule is a second nucleic acid molecule comprising at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, ~~or 600~~ or 646 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:1, or a complement thereof.

78. (Cancelled).

79. (Currently amended) The method of claim 75, wherein the compound that binds to said first nucleic acid molecule is a second nucleic acid molecule comprising at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1,000, 1,050, 1,100, 1,150, ~~or 1,200~~ or 1213 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:11, or a complement thereof.

80. (Cancelled).

81. (Currently amended) The method of claim 75, wherein the compound that binds to said first nucleic acid molecule is a second nucleic acid molecule comprising at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, ~~or 700~~ or 729 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:13, or a complement thereof.

82. (Cancelled).

83. (Cancelled).

84. (Cancelled).

85. (Cancelled).

86. (Cancelled).

87. (Cancelled).

88. (Cancelled).

89. (Currently amended) A host cell infected with the hSARS virus of ~~Deposit Accession No. CCTCC V200303~~ any one of claims 1-4.

90. (Original) The host cell of claim 89 which is a primate cell.

91. (Original) The host cell of claim 90 which is a FRhK-4 fetal rhesus monkey kidney cell.

92. (Currently amended) A host cell infected with the hSARS virus of ~~any one of claims 2-4~~ claim 6.

93. (Original) The host cell of claim 92 which is a primate cell.

94. (Original) The host cell of claim 93 which is a FRhK-4 fetal rhesus monkey kidney cell.

95. (Currently amended) A method of detecting in a biological sample the presence of an antibody that immunospecifically binds hSARS virus, said method comprising:

- (a) contacting the biological sample with the host cell of claim 89; and
- (b) detecting the antibody bound to the cell.

96. (Currently amended) A method of detecting in a biological sample the presence of an antibody that immunospecifically binds hSARS virus, said method comprising:

- (a) contacting the biological sample with the host cell of claim 92; and
- (b) detecting the antibody bound to the cell.

97. (Original) An immunogenic formulation comprising an immunogenically effective amount of the hSARS virus of claim 5, and a pharmaceutically acceptable carrier.

98. (Original) An immunogenic formulation comprising an immunogenically effective amount of the hSARS virus of claim 6, and a pharmaceutically acceptable carrier.

99. (Currently amended) An immunogenic formulation comprising an immunogenically effective amount of a protein extract of the hSARS virus of ~~claim 5~~ any one of claims 1-4 or a subunit thereof, and a pharmaceutically acceptable carrier.

100. (Original) An immunogenic formulation comprising an immunogenically effective amount of a protein extract of the hSARS virus of claim 6 or a subunit thereof, and a pharmaceutically acceptable carrier.

101. (Currently amended) An immunogenic formulation comprising an immunogenically effective amount of a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1, 11, 13 or 15, or a complement thereof, and a pharmaceutically acceptable carrier.

102. (Cancelled).

103. (Cancelled).

104. (Cancelled).

105. (Cancelled).

106. (Cancelled).

107. (Cancelled).

108. (Original) A vaccine formulation comprising a therapeutically or prophylactically effective amount of the hSARS virus of claim 5, and a pharmaceutically acceptable carrier.

109. (Original) A vaccine formulation comprising a therapeutically or prophylactically effective amount of the hSARS virus of claim 6, and a pharmaceutically acceptable carrier.

110. (Currently amended) A vaccine formulation comprising a therapeutically or prophylactically effective amount of a protein extract of the hSARS virus of ~~claim 5~~ any one of claims 1-4 or a subunit thereof, and a pharmaceutically acceptable carrier.

111. (Original) A vaccine formulation comprising a therapeutically or prophylactically effective amount of a protein extract of the hSARS virus of claim 6 or a subunit thereof, and a pharmaceutically acceptable carrier.

112. (Cancelled).

113. (Cancelled).

114. (Cancelled).

115. (Currently amended) A pharmaceutical composition comprising a prophylactically or therapeutically effective amount of an anti-hSARS agent and a pharmaceutically acceptable carrier, wherein the anti-hSARS agent is a nucleic acid molecule.

116. (Cancelled).

117. (Currently amended) The pharmaceutical composition of claim 115, wherein the anti-hSARS agent is a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1, 11, 13 or 15, or a fragment thereof.

118. (Cancelled).

119. (Cancelled).

120. (Cancelled).

121. (Original) A kit comprising a container containing the immunogenic formulation of claim 97.

122. (Original) A kit comprising a container containing the immunogenic formulation of claim 98.

123. (Original) A kit comprising a container containing the immunogenic formulation of claim 99.

124. (Original) A kit comprising a container containing the immunogenic formulation of claim 100.

125. (Currently amended) A kit comprising a container containing the immunogenic formulation of ~~any one of claims 101-103~~ claim 101.

126. (Cancelled).

127. (Cancelled).

128. (Cancelled).

129. (Cancelled).

130. (Original) A kit comprising a container containing the vaccine formulation of claim 108.

131. (Original) A kit comprising a container containing the vaccine formulation of claim 109.

132. (Original) A kit comprising a container containing the vaccine formulation of claim 110.

133. (Original) A kit comprising a container containing the vaccine formulation of claim 111.

134. (Cancelled).

135. (Original) A kit comprising a container containing the pharmaceutical composition of claim 115 or 117.

136. (Currently amended) A method for identifying a subject infected with the hSARS virus of ~~claim 1~~ any one of claim 1-4, comprising:

(a) obtaining total RNA from a biological sample obtained from the subject

(b) reverse transcribing the total RNA to obtain cDNA; and

(c) amplifying the cDNA using a set of primers ~~derived from a nucleotide sequence of the hSARS virus.~~

137. (Original) The method of claim 136, wherein the set of primers are derived from the nucleotide sequence of the genome of the hSARS virus of Deposit Accession No. CCTCC-V200303.

138. (Currently amended) The method of claim 136, wherein the set of primers are derived from the nucleotide sequence of SEQ ID NO:1, 11, ~~or 13~~ or 15, or a complement thereof.

139. (Original) The method of claim 136, wherein the set of primers have the nucleotide sequence of SEQ ID NOS:3 and 4, respectively.

140. (Cancelled).

141. (Cancelled).

142. (Cancelled).

143. (Cancelled).

144. (Currently amended) An isolated hSARS virus having the nucleotide sequence of SEQ ID NO:15, a complement thereof, or a nucleotide sequence that hybridizes to SEQ ID NO:15 under stringent condition.

145. (Cancelled).

146. (Currently amended) An isolated nucleic acid molecule comprising a nucleotide sequence having at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 100, 150, 200, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1,000, 1,050, 1,100, 1,150, 1,200, 2,000, 3,000, 4,000, 5,000, 6,000, 7,000, 8,000, 9,000, 10,000, 11,000, 12,000, 13,000, 14,000, 15,000, 16,000, 17,000, 18,000, 19,000, 20,000, 21,000, 22,000, 23,000, 24,000, 25,000, 26,000, 27,000, 28,000, 29,000 or 29,742 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:15, or a complement thereof.

147. (Cancelled).

148. (Cancelled).

149. (Cancelled).

150. (Cancelled).

151. (Original) A method for detecting the presence of the hSARS virus of claim 144 in a biological sample, said method comprising:

(a) contacting the sample with a compound that selectively binds to said hSARS virus; and

(b) detecting whether the compound binds to said hSARS virus in the sample.

152. (Original) The method of claim 151, wherein the biological sample is selected from the group consisting of cells, blood, serum, plasma, saliva, urine, stool, sputum, and nasopharyngeal aspirates.

153. (Original) The method of claim 151, wherein the compound that binds to said virus is an antibody.

154. (Currently amended) The method of claim 151, wherein the compound that binds to said virus is a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1, 11, ~~or 13~~ or 15, or a fragment thereof, or a complement thereof.

155. (Cancelled).

156. (Cancelled).

157. (Cancelled).

158. (Currently amended) A method for detecting the presence of a first nucleic acid molecule ~~comprising the nucleotide sequence of SEQ ID NO:15 or a fragment thereof~~ derived from the hSARS virus of claim 144 in a biological sample, said method comprising:

- (a) contacting the biological sample with a compound that selectively binds to said first nucleic acid molecule; and
- (b) detecting whether the compound binds to said first nucleic acid molecule in the sample.

159. (Original) The method of claim 158, wherein the biological sample is selected from the group consisting of cells, blood, serum, plasma, saliva, urine, stool, sputum, and nasopharyngeal aspirates.

160. (Original) A host cell infected with the hSARS virus of claim 144.

161. (Original) A vaccine formulation comprising a therapeutically or prophylactically effective amount of the hSARS virus of claim 144 and a pharmaceutically acceptable carrier, wherein the hSARS virus is killed.

162. (Original) A vaccine formulation comprising a therapeutically or prophylactically effective amount of the hSARS virus of claim 144 and a pharmaceutically acceptable carrier, wherein the hSARS virus is attenuated.

163. (Original) A vaccine formulation comprising a therapeutically or prophylactically effective amount of a protein extract of the hSARS virus of claim 144 and a pharmaceutically acceptable carrier.

164. (Cancelled).

165. (Original) A vaccine formulation comprising a therapeutically or prophylactically effective amount of a nucleic acid molecule comprising a nucleotide sequence of SEQ ID NO:15, a complement thereof or a fragment thereof, and a pharmaceutically acceptable carrier.

166. (Currently amended) A method for identifying a subject infected with the hSARS virus of claim 144, comprising:

(a) obtaining total RNA from a biological sample obtained from the subject

(b) reverse transcribing the total RNA to obtain cDNA; and

(c) amplifying the cDNA using a set of primers ~~derived from a nucleotide sequence of the hSARS virus.~~

167. (Currently amended) The method of claim ~~136 or~~ 166, wherein the set of primers are derived from the nucleotide sequence of SEQ ID NO:15, or a complement thereof.

168. (New) The method of claim 54, wherein the compound that binds to said virus is a nucleic acid molecule comprising a nucleotide sequence having at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 100, 150, 200, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1,000, 1,050, 1,100, 1,150, 1,200, 2,000, 3,000, 4,000, 5,000, 6,000, 7,000, 8,000, 9,000, 10,000, 11,000, 12,000, 13,000, 14,000, 15,000, 16,000, 17,000, 18,000, 19,000, 20,000, 21,000, 22,000, 23,000, 24,000, 25,000, 26,000, 27,000, 28,000, 29,000 or 29,742 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:15, or a complement thereof.

169. (New) The method of claim 75, wherein the compound that binds to said first nucleic acid molecule is a second nucleic acid molecule comprising at least 5, 10,

15, 20, 25, 30, 35, 40, 45, 100, 150, 200, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1,000, 1,050, 1,100, 1,150, 1,200, 2,000, 3,000, 4,000, 5,000, 6,000, 7,000, 8,000, 9,000, 10,000, 11,000, 12,000, 13,000, 14,000, 15,000, 16,000, 17,000, 18,000, 19,000, 20,000, 21,000, 22,000, 23,000, 24,000, 25,000, 26,000, 27,000, 28,000, 29,000 or 29,742 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:15, or a complement thereof.

170. (New) The method of claim 158, wherein the compound that binds to said first nucleic acid molecule is a second nucleic acid molecule comprising at least 5, 10, 15, 20, 25, 30, 35, 40, 45, 100, 150, 200, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1,000, 1,050, 1,100, 1,150, 1,200, 2,000, 3,000, 4,000, 5,000, 6,000, 7,000, 8,000, 9,000, 10,000, 11,000, 12,000, 13,000, 14,000, 15,000, 16,000, 17,000, 18,000, 19,000, 20,000, 21,000, 22,000, 23,000, 24,000, 25,000, 26,000, 27,000, 28,000, 29,000 or 29,742 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:1, 11, 13 or 15, or a complement thereof.

171. (New) The host cell of claim 160 which is a primate cell.

172. (New) The host cell of claim 171 which is a FRhK-4 fetal rhesus monkey kidney cell.

173. (New) A method of detecting in a biological sample the presence of an antibody that immunospecifically binds hSARS virus, said method comprising:

(a) contacting the biological sample with the host cell of claim 160; and

(b) detecting the antibody bound to the cell.